

Field Naturalists Club of Ballarat

JULY, 1983

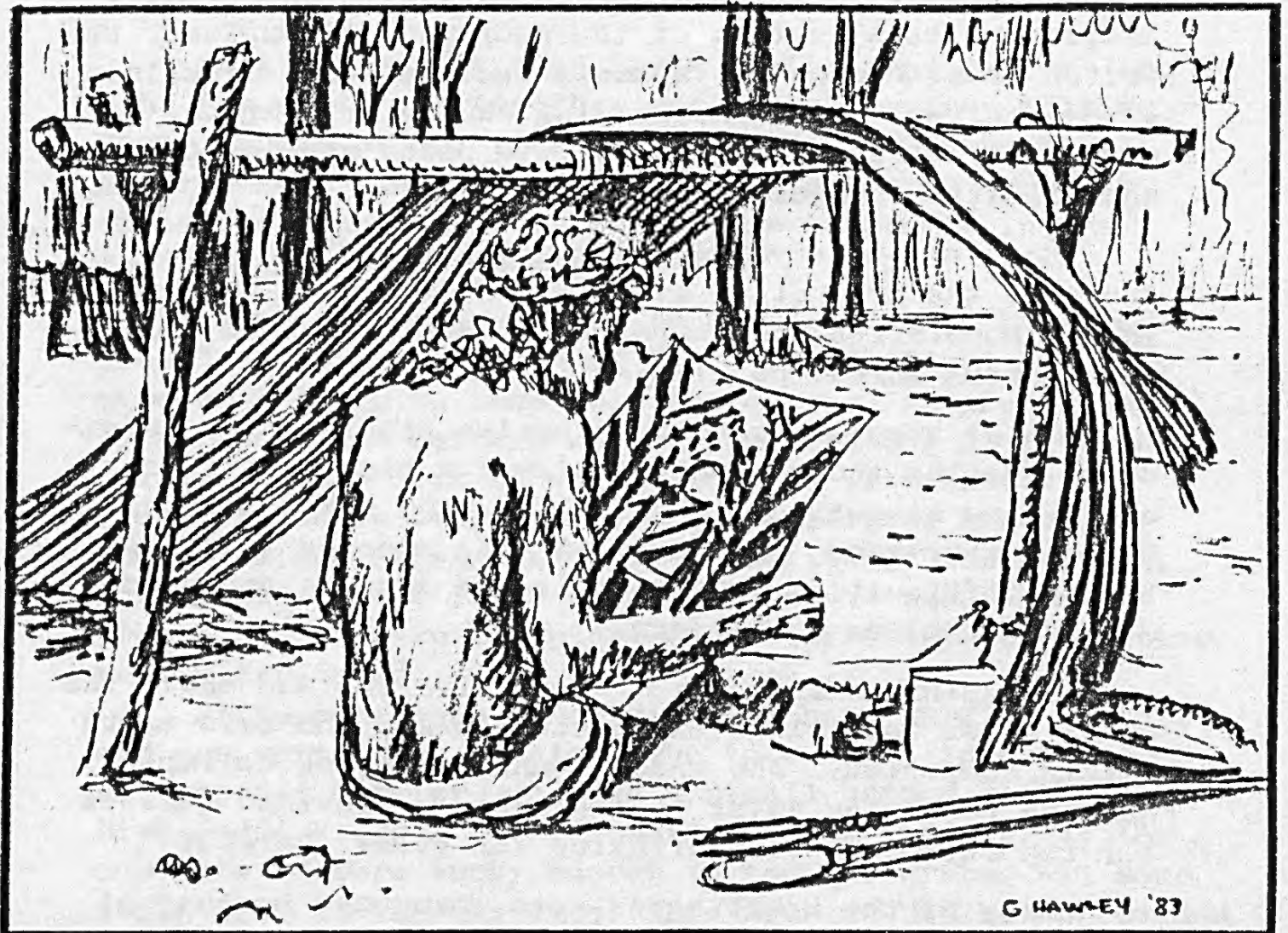
EXCURSION - NEWS SHEET

Meeting: 1st July, -"Hunting & Gathering Techniques & Artifacts of Aborigines" Speaker: Mr. J. Morris

Meeting: 5th August, Films

Excursion: 3rd July, Enfield, Fungi, Half Day.
Leader: Mrs. F. Chuk.

Excursion: 7th August, Brisbane Ranges. Full Day
Leader: Mr. L. Fink



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Meetings are held 1st floor S.M.B.
Barkly Street Annexe 7.30 p.m.

EXCURSIONS, AS SPECIFIED, COMMENCE FROM
CROCKERS, Cnr. STURT and ARMSTRONG STREETS,
BALLARAT. AT 9.30 am FOR FULL DAY OUTINGS.
OR AT 1.30 pm FOR HALF DAY.

STELLA BEDGGOOD MEMORIAL LECTURE FOR 1983, BY PROFESSOR
GEORGE SEDDON

"Man, Biology and the Evolution of Landscapes"

Professor Seddon spoke of his travels and studies in Natal, South Africa. He travelled through vast sugar plantations in lowland Natal, through Zululand with its variety of land uses, and reached the far northern High Veldt in the Drakensberg.

Professor Seddon observed that there were three primary, human ecosystems in Natal. In the Drakensberg, the high, grassy slopes support herds of grazing animals. The bushmen who once inhabited this area were "fire-stick farmers", and the practice is still used today by the rangers of the Northern Drakensberg. In Australia, the Aborigines followed this burning pattern. They reduced forest to woodland and woodland to grassland. Similarly, this is true of the moorlands of England, the Button Grass Plains of Tasmania and the Kunci Grassland of New Guinea. Frequent burning causes arid areas, erosion by streams, fire-sensitive plant species to die and climatic changes.

Most of the savannah, including its flora and fauna is the product of fire. Open grassland has a high insect population and therefore a very high bird and herbivorous animal population.

Natal sugarlands have no native plants. The introduced species include many Australian plants that are classified as noxious, e.g. wattle and hakea species. On the other hand, in Australia one species that has become difficult to eradicate is the African Boneseed - *Chrysanthemoides monilifera*.

In Zululand there is a very diverse land use. The kraal sites were clear of vegetation and the bare earth became compacted. The underground granaries collapsed and the remaining water filled holes provided wallows for the rhinoceros and drinking for other animals.

Many of the kraal sites were abandoned because of sleeping sickness. The forests and fields provided natural resources and a means of livelihood for the

gatherer and hunter.

A reason for most National Parks is their function as a water catchment area and to compliment the cities.

The Future:

There is good reason to feel concerned about our ecosystem. We must combine the best of all systems to make a stable environment. Corridors, including roadsides, steep hills and riversides could be stabilized, particularly around cities. In the future there will be less fertilizer. Tree planting groups could be formed in every State and organic farming practised in small areas in experimental stages, and so forth.

This was a very interesting and informative evening. President, Dr. Frank Harrap, thanked Professor Seddon in the usual way and it was carried by acclamation.

L. Fink

June Excursion - Working Bee

What better day than World Environment Day on June 6th. for us to get together and busy ourselves helping Roger Thomas at "Grantiella", part of the Clarksdale Reserve near Linton. A most pleasant day made our task enjoyable, though rubber boots were necessary in the thick wet grass and weeds.

Some members were put to dismantling a "kangaroo-proof" fence which had been found ineffective, and this wire mesh is to be used for tree guards, as protection from rabbits. A certain member had blisters to prove his diligence. The rest of us set to work with spades to clear the weeds away from young grevilleas, hakeas, eucalypts, and other plants in a section of the paddock. We spread a good layer of bush mulch to suppress weed growth and to give the plants a better chance of becoming well established.

Fifteen members, including two hard working juniors and one very, very, junior, who took great interest from her papoose carrier, enjoyed a stroll around part of the Bird Paddock. This was a reward for our labours. At the dam site we were lucky enough to see two grebes and some swamp hens in the distance. This area should be approached with restraint. To suddenly appear on the bank is sure

cause for alarm to the occupants. As we walked on, we saw and heard various birds, including white-throated tree-creepers, New Holland honeyeaters, crimson rosellas, grey thrush, yellow robins, blue wrens, magpies, kookaburras, brown thornbills, grey fantail, black cockatoo and scarlet robin.

The candlebarks and scentbarks were a delight and were such beautiful specimens- one of the candlebarks still had a few flowers after three months of continual flowering. A diversity of natural and planted native trees and shrubs make a wonderful haven for the birds and other creatures.

Roger showed us some luminous fungi which glow brightly enough at night for reading. We also saw Pin Fungi, Earthstars (Puff Balls) and Collybia spp. A most enjoyable day altogether.

F. Williamson

BIRDS OF THE ARID ZONE

Roughly 70% of Australia is considered to be arid but relatively little ornithological work has been conducted in the zone.

A conference in Adelaide organized by the R.A.O.U. on the 27th May, 1983, covered various aspects of the evolution, biology, ecology, etc. of the birds of the arid zone and the habitat that supports them.

The papers covered such topics as:-

Origin and evolution of arid zone birds.

Behavioural adaptations of birds of arid zones.

Some aspects of the biology of mallee fowl.

Vegetation of the arid zone.

The influence of the recent past on birds in the arid zone - current and future management policies.

The birds of the arid zone make up about 15% of the total number of Australian land and fresh water birds; there are a total of 88 species that are considered to be centred in the arid areas.

THE EVOLUTION OF THE FLORA AND FAUNA OF ARID AUSTRALIA

This is the title of a recently published book based

on a symposium, again held in Adelaide, in 1980. The preface of the book raised a number of questions which are considered later.

"What are the origins and history of the flora and fauna? What has been the history of aridity. What adaptations, life histories, breeding systems and evolutionary strategies have been selected?" In the flowering plants, for instance, only about 2000 species (say 10% of the Australian total) are recorded in the "Flora of Central Australia" which deals with an area of 25% of the continent. This compares with the "Flora of the Sydney Region", which describes more than 2000 species.

Invertebrate animals make the overwhelming contribution to the biological diversity of arid Australia; the ants, in particular, seem far more diverse than those of comparable arid areas anywhere else in the world.

A fish, the desert goby, can survive up to 27 days in distilled water and more than 60 days in sea water. It tolerates, for short periods, temperatures as low as 5°C or as high as 40°C. When the oxygen concentration falls to a low level in the creek or artesian bore in which it lives, the goby may take refuge among algae giving off oxygen as they photosynthesise. As a last resort, the fish can even breathe air.

The desert goby is then well equipped to cope with life in arid Australia, a harsh environment that is regulated not so much by relentless heat and drought, but by rapid changes from one severe adversity to another.

All these topics make up just part of the book. Other papers describe the adaptations of that successful genus *Atriplex* (saltbush), the role of fire in arid communities, the methods by which arid zone plants regenerate, and much else besides.

The volume falls into five sections: an ecological and historical background; the ecological and reproductive adaptations of plants; vertebrates; invertebrates; and individual groups of plants.

AUGUST MEETING - FILMS

Amongst the films that will be available for showing are:-

Australian Lizards

Australian Snakes

Wildlife Australia (Kakadu National Park)

A Small Body of Still Water

Others that have been requested but not confirmed are:-

Night Flight (The life of the sugar glider)

Now You See Me, Now You Don't (Defence techniques
of insects)

Echidna.

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Council of Victoria and the Environment
Centre.

Horsham Camp- out 12th - 14th August, 1983.

W.V.F.N.C.A. Camp- out and Meeting, hosted by the
Horsham Field Naturalists' Club.

Accommodation at the Little Desert National Park
Campground (about 8 km south of Kiata) is recommended
for this campout.

Alternative accommodation at an organized caravan
park or motel or hotel type accommodation is available
at either Dimboola or Nhill.

1983 AUSTRALIAN BIRD CALL IMITATION CHAMPIONSHIP

ARE YOU A BIRD CALLER ??

If so, you might be Australia's 1983 Champion:

The Maryborough Field Naturalists' Club invites all "bird callers" to enter the 1983 Australian Bird Call Imitation Championship at Maryborough (Victoria) Town Hall on SATURDAY NIGHT, 20th AUGUST.

The Club is presenting this unique and entertaining Championship as part of the City's Golden Wattle Festival.

TOTAL PRIZE MONEY OF \$500 (sponsored by the Golden Wattle Festival Committee) will be awarded at the Judge's absolute discretion. The winner will carry off a handsome trophy, featuring Australia's renowned mimic, the Lyrebird, as well as a perpetual trophy.

THE CHAMPIONSHIP RULES are straightforward. Each contestant MUST imitate the Laughing Kookaburra, and at least FOUR, but not more than TEN, other Australian native birds, within a time slot of FOUR MINUTES. (although the Kookaburra is compulsory, contestants may nominate whether they wish to be scored, or not, on this call.)

No whistles, artificial aids or backing permitted.

All entrants will combine in a hilarious Kookaburra Chorus after the Judges have made their decision.

ENTRY FEE is \$2 per contestant, and the closing date is 18th August. Get your entry form now from the Maryborough Field Naturalists' Club, c/- Mrs. Eileen Courtney, 47 Carrick Street, Maryborough, 3465 (Phone 054-612249)

This real family fun night will include a musical program of the Colonial type by Fay and Terry White. Fun being the keynote of the evening, admission charges are low - \$1 for adults, \$3 for a family and 50 cents for children.

SPRINGTIME GET-TOGETHER OF ALL CLUBS -

8th, 9th October, 1983, at Ocean Grove Motel
(and Motel Caravan Park), 64 Wallington Road,
Ocean Grove. Phone: (052) 551253.
(1.2km from Post Office)

BALLARAT CAMP-OUT 14th - 16th October, 1983

W.V.F.N.C.A Camp-out and Meeting, hosted by the Field
Naturalists' Club of Ballarat.

Venue: Lady Northcote Camp on Glenmore Road, approx-
imately 10km west of Bacchus Marsh.

Areas to be explored will probably include the
Werribee Gorge, Mallee country near Lake Merrimu and an
interesting area off the Ballan - Ingliston Road.

TIT FOR TAT

Australians learned from bitter experience the
problems caused by unwise introductions of foreign
plants and animals. The prickly pear and rabbit are
two sad examples but there are many more - lantana,
privet, capeweed, starlings, Indian mynas and a host
of others.

It is often forgotten that we have given as good as
we got.

For example, in South Africa the silky hakea was
introduced to add to the garden plants available. It
is now spreading and smothering native plants, costing
millions of dollars to eradicate.

Similarly, in the United States, Southern Florida
has declared war on two species. One is paperbark and
the other described as an "Australian pine", possibly one
of our sheoaks. Both were introduced because of their
advantages in producing rapidly growing windbreaks.
Success turned to disaster when they spread from farms
to take over the coastal islands, beaches and swamps.

Fortunately most governments have now learned
that new plants and animals should never be introduced
until extensive research has been carried out.